

OCT 21 1996

FEDERAL BUREAU OF INVESTIGATION
U.S. DEPARTMENT OF JUSTICE
OFFICE OF CONSUMER PROTECTION

DOCKET FILE COPY ORIGINAL

WT Docket No. 96-86

Respectfully submitted,

October 21, 1996

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WT Docket No. 96-86

Monday, October 21, 1996

**SUMMARY of COMMENTS SUBMITTED BY THE NATIONAL ASSOCIATION OF STATE
TELECOMMUNICATIONS DIRECTORS**

The National Association of State Telecommunications Directors (NASTD) generally supports both the concept and the intent of the FCC's NPRM in WT No. 96-86, although it takes specific exceptions with some proposals and recommendations. NASTD has a record of participating in voluntary standards setting efforts and stands ready to work with the commission in finding an equitable solution for all.

Specifically:

- 1) NASTD supports the FCC's goal of strategically combining different approaches to resolve public safety's critical spectrum needs. However, NASTD is concerned about the impact which the pressures of privatization and spectrum auctions could have upon the FCC's responsibility to ensure quality public safety services.
- 2) NASTD supports most of the goals PSWAC has articulated in its report to the FCC. It believes the need for additional spectrum is critical and recommends the FCC accelerate its efforts to provide public safety with all the new spectrum PSWAC has recommended.
- 3) NASTD recommends caution when attempting to define the relative importance of public safety services. State and local governments are in a better position to determine which services are public safety versus those which are public service.
- 4) NASTD is supportive of interoperability between multiple public safety agencies, although it prefers to emphasize over-the-air interoperability such as that being provided by Project 25. "Interoperability" should include both multiple agency and multiple discipline capabilities.
- 5) The proposed definition of "emergency preparedness events" or "task force operations" in the FCC's "interoperability categories" significantly underplays the importance of "emergency preparedness." Those two functions are generally on the opposite ends of the operational continuum.
- 6) The option of designating mutual aid channels is a viable short-term solution that significantly increases every agency's design, implementation and operational costs. The FCC should encourage public safety radio and land mobile equipment manufacturers to build economical multiple band, multiple mode radios.

- 7) NASTD recognizes the need to have interoperability with analog FM. Project 25 provides for that interoperability.
- 8) Although NASTD will encourage its members to consider designated interoperability channels, the FCC should not mandate this option, which will raise per unit and per system costs.
- 9) NASTD does not support specifying any one emission standard for interoperability at this time.
- 10) NASTD supports a variety of future technologies under "future needs."
- 11) NASTD agrees that the level of service the public safety community expects to provide is probably as important as the services themselves. NASTD supports working toward a high-speed, wireless data subscriber unit standard.
- 12) NASTD recommends setting aside small blocks of spectrum where new technologies can be implemented.
- 13) The cost of implementing narrow band technologies for anything other than voice and some limited data may be prohibitive.
- 14) The FCC should carefully consider the issue of unfunded mandates requiring the states to replace fully functioning systems before the end of their useful lives.
- 15) NASTD agrees with PSWAC recommendations to allocate about 100 MHz of new spectrum by 2010. NASTD supports the allocation of as much contiguous spectrum as possible.
- 16) NASTD believes that the optimal long-term solution for spectrum allocations is to allocate spectrum adjacent to current spectrum. Allocating a block of spectrum large enough for all public safety is a worst case solution because of the high cost of moving current users.
- 17) NASTD does not believe commercial systems are inherently more efficient than public systems. The use of commercial providers should be one of many options for public safety.

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consensus of the Association. However, it is not intended to imply there is an absolute agreement on every issue, but rather that the Association's leadership and the majority of the members support that position. Because the Association supports the concept of diversity and the need for states to individually and collectively take actions that best suit their needs, we anticipate that those states having other comments will address them in their own filing.

NASTD is pleased to see the Federal Communications Commission is working aggressively to address the long-term needs of the public safety community. Although as an Association we are very selective as to which regulatory issues we respond, we feel this Notice Of Proposed Rule Making (NPRM) 96-86 is so important we need to express our general support and, where appropriate, our concerns to both the Commission and the Public Safety Wireless Advisory Council for their efforts to ensure the public safety community has adequate spectrum for many years to come.

High Quality Service and Technologies:

NASTD supports the Commission's assumption that spectrum used by critical public safety functions and services must be protected in order to ensure government at all levels can fulfill their obligation to protect lives and property. We support the goal of helping to guarantee that tomorrow's public safety provider will have full "access to higher quality transmission, emerging technologies, and broader services, including the ability to

communicate readily with one another (interoperability).” In fact, NASTD is one of the primary supporters of Project 25 and its voluntary standards effort.

The Need for a Diversified Approach to the Future:

We also understand and generally support the Commission in “strategically” combining different approaches to resolve public safety’s critical spectrum needs. Although we support the Commission’s goal, we are concerned about the impact that the continuing and unrelenting pressures of privatization and spectrum auctions could have upon the FCC’s responsibility to ensure quality public safety services.

The Need for Interoperability:

NASTD strongly supports the concepts of interoperability, dynamic and robust features, allocations of additional spectrum to public safety, high-quality service and spectrum-efficient technology that promote competition in the American communications equipment marketplace.

The Need for Additional Spectrum:

We also support most of the goals and efforts PSWAC articulated in their report to the Commission. We believe the need for additional spectrum is critical and would recommend the Commission accelerate its efforts to provide the public safety community all the new spectrum PSWAC has recommended. We also concur in their

recommendation that there needs to be spectrum set aside for interoperability in each of public safety's spectrum allocations.

PSWAC Proposal to Set Aside Spectrum for High-Speed Data:

NASTD is also supportive of PSWAC's proposal to set aside new spectrum for public safety and other government users to transmit and receive high-speed data on portables, mobiles and base stations. In fact, NASTD, APCO and a number of Federal agencies are currently working together in a cooperative effort to see that the dream of a nationwide high-speed, wireless public safety and governmental data network becomes a reality.

Definition of Public Safety Services:

We support the Commission's effort to define each of the public safety services: a) public safety, b) public safety services, c) public safety service provider, d) public safety support provider, and e) public services. However, we have some concern that the Commission's effort to categorize these services may by its very nature diminish or appear to diminish the importance of some of these services to the public safety effort as a whole. We recommend the Commission exercise caution and carefully review the long-term impact on the entire public safety community before it attempts to make judgments on the relative importance of each of these services. We believe your goal of increasing the use of cooperative service may be negatively impacted if you place or appear to place more artificial regulatory barriers between the various public safety services than already

exist. In that regard, we believe the state and local government users are in a better position to determine, under general guidelines from the Commission, which services are truly public safety and which are public service.

Interoperability Between Multiple Public Safety Agencies:

NASTD is also supportive of the concept of interoperability between multiple public safety agencies, although we prefer to emphasize over the air interoperability such as that being provided by the Project 25 Standards. In spite of our preference, we recognize there may always be a need for what the Commission has defined as “Infrastructure-dependent” interoperability. We also encourage the concept of interoperability to include both multiple agency and multiple discipline capabilities, which are both embodied in our current cooperative Project 25 effort. Although we generally agree with the Commission’s basic definitions, we are very reluctant to offer a blanket support of them, without knowing more as to how the Commission intends to apply them.

Interoperability Categories:

The Commission has made an excellent effort to simplify and define interoperability categories. After reviewing the definitions of each of these categories, we would encourage the Commission to consider the separation of the “Emergency Preparedness Events or Task Force Operations.” We believe the current definition significantly underplays the importance of “Emergency Preparedness.” In our opinion, these two

functions are generally on the opposite ends of the operational continuum. Task force operations are usually planned in advance and executed as the need dictates and/or in accordance with a predetermined schedule. Emergency preparedness and emergency response teams on the other hand generally are responding spontaneously to an emergency that may include multiple agencies and multiple disciplines.

Adjacent Channel Interoperability:

Obviously, the ideal solution to the problem of adjacent channel interoperability would be to gradually migrate all public safety, voice and slow speed data operations to a large block of contiguous spectrum in the VHF high band and/or the lower half of UHF band. The option of designating mutual aid channels is a viable short-term solution that significantly increases every agency's design, implementation and operational costs. It lacks a cohesive management process and a designated authority who will be responsible for its use and operation. But, all things being equal, it is an option that is achievable and to a degree common in today's public safety community. We believe the Commission should modify its third option to include the encouragement of public safety radio and land mobile equipment manufacturers to build economical multiple band, multiple mode radios. NASTD generally accepts the comments provided by PSWAC as to the number and specific frequency bands that should include mutual aid channels.

Base Line Interoperability Standards for FM Analog

NASTD does not dispute the need for interoperability and recognizes a need to have interoperability with analog FM. In that regard, the Project 25 Standards that we helped develop have led the way in the quest for interoperability. These standards already include backward compatibility to analog FM without the Commission having to adopt a base line analog FM standard. We are not convinced there is any value in the creation of a 25 KHz analog base line for interoperability when it already exists. If a new base line analog standard is really required, perhaps it should be based on a 12.5 KHz analog FM standard. Since NASTD, APCO and numerous Federal agencies have already created a 12.5 digital standard, we believe the Commission should seriously look at using our suite of Project 25 Standards as one of their base line digital standards.

Mandatory Interoperability Standards:

NASTD does not agree that all public safety radios sold should be required to include designated interoperability channels. Even though we would strongly encourage our members to consider that option, we do not believe the FCC should mandate a feature that will increase the per unit and system cost of our members.

FCC Emission Requirements:

NASTD does not at this time support the concept of the Commission specifying any one emission standard for interoperability. Our reluctance to support this issue is based more

on the lack of specifics on which emissions are being considered than it is on the actual concept. We recommend the Commission be more specific on how, where and what emission standards they intend to apply, so that the end user may respond specifically.

Future Needs:

NASTD is particularly excited about the Commission's desire to explore the future needs for spectrum and technology required by public safety agencies. NASTD is convinced that remote, wireless technologies will become one of the major factors in public safety's ability to cope with ever-increasing populations and the social and economic problems they can spawn. We look forward to seeing the following:

- Very high-speed data terminal access from both the vehicle and hand-held portables.
- Direct high speed access and input and output of on site, 10 point fingerprint information.
- On site scanning of vehicle identification numbers (VIN) numbers
- On site scanning of coded driver licenses data that contain all pertinent driver record information.
- On site scanning of the pertinent medical records of people carrying medical assist cards.
- Close circuit, full scan video surveillance of vehicles in motion.

- Close circuit video scanning of vehicle tags while vehicle is in motion, allowing for an automatic wants, warrants and proper registration check prior to the vehicle being stopped.
- Real time, full scan video surveillance of vehicle stops in high-crime areas or where local conditions dictate.
- Automatic inquiry and authorized update of all city, county, state and federal driver license files from remote hand-held pads.
- Automatic inquiry and update of all pertinent and authorized criminal history files.
- Automatic updating of outstanding wants and warrants files at the time of client arrest.
- Ability to transmit real time crime scene video for future analysis and use in criminal trials as appropriate.
- Ability to transmit real time video of accident scenes for use in accident investigation, future litigation, and highway redesign and engineering work.
- Real time transmission of high quality individual photographs.
- Real time voice identification and file comparison through wireless interconnects.
- Real time transmission of comprehensive building and site plans for police, fire and medical use.
- On site verification of retinal prints.

- On site verification of computer-coded Immigrations and Naturalization work cards and visa.
- On site accident investigation analysis through high-speed data networks and centrally located engineering, friction, skid, speed analysis and impact analysis.
- High-speed verification of interstate motor transport records including those associated with the truck and the driver.
- Control of the electronic highway, including sign, traffic control devices and eventually the vehicles themselves.

Level of Service:

NASTD agrees with the Commission that the level of service the public safety community expects to provide is probably as important as the services themselves.

NASTD, APCO and a number of Federal agencies are already aggressively working toward identifying all of the problems, needs and issues in hopes of developing a high-speed, wireless data subscriber unit standard. This work is being done as a part of APCO's Project series and is currently known as Project 34. We believe the following are some of the major stumbling blocks that we must overcome:

- Lack of an identifiable funding source that can be used to implement and maintain the system, once it is designed and engineered.

- Lack of spectrum to be able to obtain end-to-end network response time of 3 or less seconds.
- Need for a lead agency to take on the responsibility of designing ubiquitous wireless network.¹
- Need for standardized high-speed data terminals and wireless subscriber units.
- Multiplicity of operational data platforms.
- Number of network control processors or switches that must be accessed or used.
- The wireless mobile data network of the future will be the foundation of this nation's ability to perform cost effective and efficient law enforcement, emergency preparedness, fire, and emergency medical services.

Technologies:

NASTD has aggressively supported Project 25 and its efforts to create technology standards using FDMA. However, our support, and to the best of our knowledge the support of the other Project 25 participants, was never intended to preclude the use of the other technology options you have identified. In fact, we recognize that those technologies may benefit some of our large metropolitan cities and a number of very large consolidated dispatch systems. Our primary concern has been and still is the need for the Commission to set aside a small block of unallocated spectrum where those technologies could be easily implemented. We also believe that the size of the block allocation should be mutually reconsidered on a regular basis by both the Commission and the users to

¹ The term wireless relates to the subscriber units and does not necessarily imply that the backbone transport network cannot be a combination of wire, fiber, microwave, and land mobile RF.

ensure that adequate spectrum has been provided or, in a less likely case, too much spectrum having been allocated. We believe the Commission should consider allocating this small block of spectrum adjacent to the commercial providers they believe may be interested in and capable of providing public safety services. That would ensure adjacent channel interoperability. In this way the Commission , the commercial provider, and the public safety agencies would have an opportunity to easily experiment with the concept of privatization without jeopardizing the life and property of the citizens of this nation.

Narrow Band Technologies:

NASTD is concerned the Commission is overemphasizing the benefits of narrow band technology and its so-called spectrum efficiencies and under-emphasizing the tremendous need for additional public safety spectrum. We would remind the Commission that the very real cost of implementing narrow band technologies for anything other than voice and some limited functional and operational data may be prohibitive. More importantly, narrow band digital systems have a very real overhead of reduced geographical coverage. In many cases this reduced coverage will translate into a need for more spectrum which will negate some of the intended benefits. We also urge the Commission to carefully consider unfunded mandates requiring state and local governments to replace in-place, fully functional, working systems before the end of their useful life.

NASTD generally supports the concept of system trunking on a voluntary basis when and where it applies. We would strenuously object to the Commission mandating trunking on any government level. The maximum value and benefits of a trunked system are derived from the cooperative use of common resources, by users that have interrelated responsibilities and common coverage areas. We also support the use of improved antenna system design and expect our members would do everything in their power to minimize adjacent system or area overlapping coverage. However, once again, we believe the responsibility for making that decision resides on a local level, not with the FCC.

NASTD and its members believe the Commission and the users should work in a cooperative manner to ensure maximum use of our finite spectrum resource.

Conceptually we can support requiring the users to implement a particular standards based technology within a predetermined time frame. Our conditional support of that concept is predicated on the assumption that the technology in question is in fact in a production line mode, and/or will be in a production line mode within a predetermined time period. We also believe the selection of technologies should generally be left to the users, as long as they comply with FCC rules and regulations.

NASTD is on record strongly supporting interoperability as evidenced by our continuing support of Project 25. However, we do not believe there is a readily available single solution to the interoperability problem. In fact, resolving the interoperability problem

requires tremendous cooperation, standardized technology and adjacent spectrum. Each and every public safety manager and user has the responsibility and the obligation to work with their neighbors, peers and adjacent users to ensure they have established an interoperability plan.

We believe the Commission could continue to encourage interoperability by allocating protected spectrum in each of the public safety frequency bands for interoperability, and by encouraging users to adopt a plan for interoperability on a wide area basis. We also believe the Commission can set aside a small block of clear spectrum that can only be used by users that fit a specific operational and loading criteria that ensures complete interoperability.

Spectrum Allocations:

NASTD generally agrees with the Draft PSWAC Report's recommendation to allocate approximately 100 MHz on new spectrum by the year 2010. Although we recognize the final report may have adjusted that number slightly up or down we believe it to be reasonably accurate based on the data contained in PSWAC's Committee Reports. We would strongly encourage the Commission to seek out as much contiguous spectrum that could be effectively used by public safety as possible. We also encourage the Commission to make every effort to find spectrum that is adjacent to that now being used to encourage interoperability.

Spectrum Allocation Options:

As previously stated, NASTD strongly supports the concept of more efficient use of our finite spectrum resources. We believe that, from our perspective, the optimal long-term solution is the allocation of additional spectrum that is adjacent to current spectrum.

Allocating a block large enough for all of public safety to move to is a worst case solution because of the high cost of moving existing users in both public safety and other user groups.

With regard to the reallocation of federal spectrum, NASTD believes it would be presumptuous on our part to assume there is sufficient unused Federal spectrum that could or should be reallocated. We believe the Federal Communications Commission and NTIA have both the responsibility and the authority to manage our finite spectrum resources, including unused federal spectrum. To pit federal, state, city and county public safety agencies against each other in a spectrum fight would be inappropriate.

With regard to the issue of commercial wireless service, we do not believe that commercial systems are inherently more efficient than public systems. Commercial providers may present one (of several) option(s) for users, and should be judged on their ability to provide and guarantee the required levels of service, coverage, redundancy and emergency response that a public safety user needs.

Improving Public Safety Spectrum Administration:

NASTD supports the concept of improved administration of the FCC spectrum allocation. However, we are not convinced a proposal of post licensing coordination is in the best interest of the public safety community. We are withholding further comment pending more specific detail on how this proposal would work.

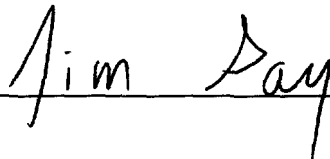
Conclusion:

NASTD generally supports both the concept and the intent of the Commission's NPRM. Although we take specific exceptions with some proposals and recommendations, we stand ready to work with the Commission in finding an equitable solution for all concerned.

Respectfully Submitted

NASTD

by

A handwritten signature in cursive script that reads "Jim Gay". The signature is written in dark ink and is positioned above a solid horizontal line.

Jim Gay, President

NASTD

c/o The Council of State Governments

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Monday, October 21, 1996